

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF THE CLAIMS:

Claims 1-2 (Cancelled)

3. (Previously Presented) A microscope optical system, comprising:

an objective lens; and  
an intermediate magnification varying part disposed just after an image side of said objective lens to vary magnification of a sample observed through said objective lens,

wherein said intermediate magnification varying part includes a lens group having a positive refractive power and a lens group having a negative refractive power,

in a high magnification variation state, said lens group having a positive refractive power is disposed just after the image side of said objective lens, while in a low magnification variation state, said lens group having a negative refractive power is disposed just after the image side of said objective lens, and

said intermediate magnification varying part is constructed in such a way that its optical system is rotatable relative to an optical axis of said objective lens with an axis substantially orthogonal to said optical axis of said objective lens being a rotation axis.

4. (Original) A microscope optical system according to claim 3, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

5. (Currently Amended) A microscope optical system, comprising:

an objective lens; and  
an intermediate magnification varying part disposed just after an image side of said objective lens to vary magnification of a sample observed through said objective lens,

wherein said intermediate magnification varying part is constructed in such a way that its optical system is rotatable relative to an optical axis of said objective

lens with an axis substantially orthogonal to said optical axis of said objective lens being a rotation axis,

wherein said intermediate magnification varying part includes a first lens group having a positive refractive power and a second lens group having a negative refractive power,

wherein in said high magnification variation state, said intermediate magnification varying part is set to a first state in which said first lens group is disposed just after the image side of said objective lens so that said microscope optical system is composed of said objective lens, said first lens group and said second lens group disposed in that order,

wherein in said low magnification variation state, said intermediate magnification varying part is set to a second state in which said second lens group is disposed just after the image side of said objective lens so that said microscope optical system is composed of said objective lens, said second lens group and said first lens group disposed in that order, and

wherein said intermediate magnification varying part is so constructed to be rotated by 180 degrees about a rotation axis substantially orthogonal to said optical

axis of said objective lens so that said intermediate magnification varying part is set to one of said first state and said second state selectively.

6. (Previously Presented) A microscope optical system according to claim 5, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

7. (Previously Presented) A microscope optical system according to claim 3, wherein a magnification of the intermediate magnification varying part in said high magnification variation state is  $\alpha$  and a magnification thereof in said low magnification variation state is  $1/\alpha$ .

8. (Previously Presented) A microscope optical system according to claim 7, wherein said magnification  $\alpha$  satisfies  $1.25 \leq \alpha \leq 2.5$ .

9. (Cancelled)

10. (Original) A microscope optical system according to claim 7, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

11. (Original) A microscope optical system according to claim 8, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

Claims 12-19 (Cancelled)

20. (Previously Presented) A microscope optical system according to claim 5, wherein a magnification of the intermediate magnification varying part in said high magnification variation state is  $\alpha$  and a magnification thereof in said low magnification variation state is  $1/\alpha$ .

21. (Previously Presented) A microscope optical system according to claim 20, wherein said magnification  $\alpha$  satisfies  $1.25 \leq \alpha \leq 2.5$ .

22. (Cancelled)

23. (Previously Presented) A microscope optical system according to Claim 3, wherein an optical axis of said intermediate magnification varying part is aligned with said optical axis of said objective lens, and said intermediate magnification varying part is constructed to be rotated by 180 degrees about said rotation axis at a point on said optical axis of the intermediate magnification varying part to select one of said high magnification variation state and said low magnification variation state.

24. (Previously Presented) A microscope optical system according to Claim 5, wherein an optical axis of said intermediate magnification varying part is aligned with said optical axis of said objective lens, and said intermediate magnification varying part is constructed to be rotated by 180 degrees about said rotation axis at a

point on said optical axis of the intermediate magnification varying part.

25. (Previously Presented) The microscope optical system of Claim 3, wherein:

    said lens group having a positive refractive power comprises a first lens group, and said lens group having a negative refractive power comprises a second lens group,

    wherein in said high magnification variation state, said intermediate magnification varying part is set to a first state in which said first lens group is disposed just after the image side of said objective lens so that said microscope optical system is composed of said objective lens, said first lens group and said second lens group disposed in that order,

    wherein in said low magnification variation state, said intermediate magnification varying part is set to a second state in which said second lens group is disposed just after the image side of said objective lens so that said microscope optical system is composed of said objective lens, said second lens group and said first lens group disposed in that order, and

wherein said intermediate magnification varying part is so constructed to be rotated by 180 degrees about a rotation axis substantially orthogonal to said optical axis of said objective lens so that said intermediate magnification varying part is set to one of said first state and said second state selectively.

26. (Cancelled)